

# CASE STUDY

## Analytics

### *Advanced Analytics*

#### **CLIENT BACKGROUND:**

A cooperative of a public utility company that is primarily engaged in the generation, transmission, and distribution of electricity.

#### **THE BUSINESS IMPACT:**

- Based on data analytics, identified potential resource allocation savings of \$5 -\$7M.
- Maximized the resources and investment directed to the development of renewable energy sources and implementing automation in day to day business processes.
- Identified targeted improvements of up to 23% in resource allocations across the back office, call center, generation and transmission business units.

#### **THE BUSINESS CHALLENGE:**

The cooperative is the dominate provider in their region and needed to:

- Provide affordable and reliable electric service
- Comply with environmental rules and regulations
- Account for the trend of decreasing demand due to conservation efforts and customer generated electricity
- Balance various competing investment priorities simultaneously

The long-term strategy was to maximize their investments in the development of renewable energy sources and in technologies used for automated business processes, such as implementing automatic meter reading, paperless billing, and predictive maintenance systems.

#### **THE BAKER TILLY APPROACH:**

Baker Tilly performed a benchmarking study of similar sized cooperatives and departmental staffs at comparable utility companies. Extensive research was conducted to gather data on staff sizes by functional divisions along with operational metrics such as peak demand, levels of electricity generated, dollars of electricity purchased, overhead distribution, underground distribution and numbers of substations.

Using these metrics, statistical models were created to show the cooperative's management team where they ranked in comparison to their peer groups. By considering the cooperative's own operational metrics, the model helped visualize whether its functional staff sizes were typical or outside the norm.

#### **VALUE TO THE CUSTOMER:**

The advanced analytic approach provided the cooperative:

- A validation of division staff sizes against industry norms by functional areas like generation, transmission, distribution, call center, and back office – quantitative data the management team needed to identify ideal staff sizes by division.
- Insight and ability to understand the opportunities in day to day operational capacity and relocate those resources into high value strategic initiatives.
- Data-driven resource staffing norms that can be used to evaluate their current staffing levels. This type of actionable data analytics highlights where efficiencies can be made and helps the cooperative focus on areas that will have the greatest impact in maintaining service levels and operational capacities.
- Ability to create intuitive visualizations of the findings and new insights learned by each functional area, and share with the management team and key stakeholders.

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